

SEQUENCE LISTING

<110> Shimkets, Richard
Lichenstein, Henri
Vernet, Corine
Fernandes, Elma

<120> NOVEL POLYPEPTIDES AND NUCLEIC ACIDS ENCODING SAME

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<140> 09/715,417

<141> 2000-11-16

<150> 60/166,336

<151> 1999-11-19

<150> 60/167,785

<151> 1999-11-29

<150> 60/187,844

<151> 2000-03-08

<160> 38

<170> PatentIn Ver. 2.1

<210> 1

<211> 791

<212> DNA

<213> Homo sapiens

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<212> PRT

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 Ser Arg Arg Ser Ile Val Pro Ser Ser Pro Gln Pro Gln Arg Ala Gln
 50 55 60
 Leu Ala Pro His Ala Pro His Pro Ser His Pro Arg His Pro His His
 65 70 75 80
 Pro Gln His Thr Pro His Ser Leu Pro Ser Pro Asp Pro Asp Ile Leu
 85 90 95
 Ser Val Ser Ser Cys Pro Ala Leu Tyr Arg Asn Glu Glu Glu Glu Glu
 100 105 110
 Ala Ile Tyr Phe Ser Ala Glu Lys Gln Cys Met Ile Ile Val Thr Ser
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala His Ala Thr Cys Lys
 50 55 60
 Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr Glu Gly Asp Gly Ile
 65 70 75 80
 Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp Asn Gly Gly Cys Ala
 85 90 95
 Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys Val Ser Cys Ser Cys
 100 105 110
 Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys Thr Glu Ile Asp Pro
 115 120 125
 Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu His Ala Thr Cys Lys
 130 135 140
 Met Thr Gly Pro Gly Lys His Lys Cys Glu Cys Lys Ser His Tyr Val
 145 150 155 160
 Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu Pro Ile Asp Arg Cys
 165 170 175
 Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala Lys Cys Ala Asp Leu
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210	215	220
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Gly Ile Val Asp Tyr Gly Pro Arg Pro Asn Lys Ser Glu Met Trp Asp		
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 35 40 45
 Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala His Ala Thr Cys Lys
 50 55 60
 Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr Glu Gly Asp Gly Ile
 65 70 75 80
 Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp Asn Gly Gly Cys Ala
 85 90 95
 Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys Val Ser Cys Ser Cys
 100 105 110
 Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys Thr Glu Ile Asp Pro
 115 120 125
 Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu His Ala Thr Cys Lys
 130 135 140
 Met Thr Gly Pro Gly Lys His Lys Cys Glu Cys Lys Ser His Tyr Val
 145 150 155 160
 Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu Pro Ile Asp Arg Cys
 165 170 175
 Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala Lys Cys Val Asp Leu
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 His Phe Gln Asp Thr Thr Val Gly Val Phe His Leu Arg Ser Pro Leu
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gln Arg Gly Ala Ala Val Arg Val Cys Arg Gly Arg Gly Arg Ala Gly
 50 55 60
 Gly Ala Gly Arg Arg Asp Gly Arg Ala Ala Leu Gly Gly Pro Thr Ala
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<212> DNA
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<213> Homo sapiens

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Ser Asn Val His Asn Leu Asn Ser Val Lys Glu Ser Pro His Glu Arg
50 55 60
Met His Arg His Ile Glu Leu Ala Trp Ala Phe Ser Thr Val Ile Gly
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Thr Leu Leu Phe Leu Ala Glu Val Val Leu Leu Cys Trp Val Lys Phe
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Leu Pro Leu Lys Lys Gln Pro Gly Gln Pro Arg Pro Thr Ser Lys Pro
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115 120 125
Gly Gln Ala Ala Ala Ile Ala Ser Thr Thr Ile Met Val Pro Phe Gly
130 135 140
Leu Ile Phe Ile Val Phe Ala Val His Phe Tyr Arg Ser Leu Val Ser
145 150 155 160
His Lys Thr Asp Arg Gln Phe Gln Glu Leu Asn Glu Leu Ala Glu Phe
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<210> 11
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<212> DNA
<213> Homo sapiens

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<210> 12

<211> 669

<212> PRT

<213> Homo sapiens

<400> 12

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Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys
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Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp

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Ala	Ser	Gly	Glu	Cys	Gly	Ser	Cys	Val	Asn	Thr	Pro	Ser	Cys	Pro	Arg
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Trp	Ser	Lys	Pro	Lys	Gly	Val	Lys	Gln	Lys	Cys	Leu	Tyr	Asn	Leu	Pro
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Gln Ile Pro Arg Cys Cys Lys Gly Tyr Phe Gly Arg Asp Cys Gln Ala
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 Glu Gly Asp Gly Ile Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp
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 Thr Glu Ile Asp Pro Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu
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 565 570 575
 Lys Ser His Tyr Val Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu
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 Pro Ile Asp Arg Cys Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala
 595 600 605
 Lys Cys Val Asp Leu His Phe Gln Asp Thr Thr Val Gly Val Phe His
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 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp
 50 55 60
 Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
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Leu	Lys	Leu	Ile	Ser	Asn	Ala	Thr	Ser	Leu	Gln	Gly	Glu	Pro	Ile	Val	100	105	110
Ile	Ser	Val	Ser	Gln	Ser	Thr	Val	Tyr	Ile	Asn	Asn	Lys	Ala	Lys	Ile	115	120	125
Ile	Ser	Ser	Asp	Ile	Ile	Ser	Thr	Asn	Gly	Ile	Val	His	Ile	Ile	Asp	130	135	140
Lys	Leu	Leu	Ser	Pro	Lys	Asn	Leu	Leu	Ile	Thr	Pro	Lys	Asp	Asn	Ser	145	150	155
Gly	Arg	Ile	Leu	Gln	Asn	Leu	Thr	Thr	Leu	Ala	Thr	Asn	Asn	Gly	Tyr	165	170	175
Ile	Lys	Phe	Ser	Asn	Leu	Ile	Gln	Asp	Ser	Gly	Leu	Leu	Ser	Val	Ile	180	185	190
Thr	Asp	Pro	Ile	His	Thr	Pro	Val	Thr	Leu	Phe	Trp	Pro	Thr	Asp	Gln	195	200	205
Ala	Leu	His	Ala	Leu	Pro	Ala	Glu	Gln	Gln	Asp	Phe	Leu	Phe	Asn	Gln	210	215	220
Asp	Asn	Lys	Asp	Lys	Leu	Lys	Glu	Tyr	Leu	Lys	Phe	His	Val	Ile	Arg	225	230	235
Asp	Ala	Lys	Val	Leu	Ala	Val	Asp	Leu	Pro	Thr	Ser	Thr	Ala	Trp	Lys	245	250	255
Thr	Leu	Gln	Gly	Ser	Glu	Leu	Ser	Val	Lys	Cys	Gly	Ala	Gly	Arg	Asp	260	265	270
Ile	Gly	Asp	Leu	Phe	Leu	Asn	Gly	Gln	Thr	Cys	Arg	Ile	Val	Gln	Arg	275	280	285
Glu	Leu	Leu	Phe	Asp	Leu	Gly	Val	Ala	Tyr	Gly	Ile	Asp	Cys	Leu	Leu	290	295	300
Ile	Asp	Pro	Thr	Leu	Gly	Gly	Arg	Cys	Asp	Thr	Phe	Thr	Thr	Phe	Asp	305	310	315
Ala	Ser	Gly	Glu	Cys	Gly	Ser	Cys	Val	Asn	Thr	Pro	Ser	Cys	Pro	Arg	325	330	335
Trp	Ser	Lys	Pro	Lys	Gly	Val	Lys	Gln	Lys	Cys	Leu	Tyr	Asn	Leu	Pro	340	345	350
Phe	Lys	Arg	Asn	Leu	Glu	Gly	Cys	Arg	Glu	Arg	Cys	Ser	Leu	Val	Ile	355	360	365
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 <212> DNA
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<210> 16
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 <212> PRT
 <213> Homo sapiens

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Trp	His	Ile	Ala	Ala	Lys	Asp	Ser	Cys	Leu	Trp	Leu	Lys	Pro	Ser	Asp	
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Leu	Leu	Leu	Gln	Val	Lys	Asp	Trp	Asp	Lys	Tyr	Gly	Leu	Met	Pro	Gln	
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Val	Leu	Arg	Tyr	His	Val	Val	Ala	Cys	His	Gln	Leu	Leu	Leu	Glu	Asn	
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Leu	Lys	Leu	Ile	Ser	Asn	Ala	Thr	Ser	Leu	Gln	Gly	Glu	Pro	Ile	Val	
			100					105					110			
Ile	Ser	Val	Ser	Gln	Ser	Thr	Val	Tyr	Ile	Asn	Asn	Lys	Ala	Lys	Ile	
		115					120					125				
Ile	Ser	Ser	Asp	Ile	Ile	Ser	Thr	Asn	Gly	Ile	Val	His	Ile	Ile	Asp	
	130					135					140					
Lys	Leu	Leu	Ser	Pro	Lys	Asn	Leu	Leu	Ile	Thr	Pro	Lys	Asp	Asn	Ser	
	145				150					155					160	
Gly	Arg	Ile	Leu	Gln	Asn	Leu	Thr	Thr	Leu	Ala	Thr	Asn	Asn	Gly	Tyr	
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Ile	Lys	Phe	Ser	Asn	Leu	Ile	Gln	Asp	Ser	Gly	Leu	Leu	Ser	Val	Ile	
			180					185					190			
Thr	Asp	Pro	Ile	His	Thr	Pro	Val	Thr	Leu	Phe	Trp	Pro	Thr	Asp	Gln	
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Ala	Leu	His	Ala	Leu	Pro	Ala	Glu	Gln	Gln	Asp	Phe	Leu	Phe	Asn	Gln	
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Asp	Asn	Lys	Asp	Lys	Leu	Lys	Glu	Tyr	Leu	Lys	Phe	His	Val	Ile	Arg	
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Asp	Ala	Lys	Val	Leu	Ala	Val	Asp	Leu	Pro	Thr	Ser	Thr	Ala	Trp	Lys	
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Thr	Leu	Gln	Gly	Ser	Glu	Leu	Ser	Val	Lys	Cys	Gly	Ala	Gly	Arg	Asp	
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 Leu Pro Cys Gly Cys Ser Asp His Gly Gln Cys Asp Asp Gly Ile Thr
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 Thr Glu Ile Asp Pro Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu
 545 550 555 560
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 Lys Ser His Tyr Val Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu
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 595 600 605
 Lys Cys Val Asp Leu His Phe Gln Asp Thr Thr Val Gly Val Phe His
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 Leu Arg Ser Pro Leu Gly Gln Tyr Lys Leu Thr Phe Asp Lys Ala Arg

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<210> 17
 <211> 3625
 <212> DNA
 <213> Homo sapiens

<400> 17

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<210> 18
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 <212> PRT
 <213> Homo sapiens

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      20              25              30

Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys
      35              40              45

Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp
      50              55              60

Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
      65              70              75              80

Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn
      85              90              95

Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val
      100             105             110

Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile
      115             120             125

Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp
      130             135             140

Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser
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Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr
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 Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg
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Pro Pro Val Arg Arg Thr Thr Arg Val Ser Val Thr Trp Ile Met Lys
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<212> DNA
<213> Homo sapiens

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<211> 334
<212> PRT
<213> Homo sapiens

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Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys	35	40	45
Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp	50	55	60
Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln	65	70	75
Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn	85	90	95
Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val	100	105	110
Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile	115	120	125
Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp	130	135	140
Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser	145	150	155
Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr	165	170	175
Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile	180	185	190
Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln	195	200	205
Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln	210	215	220
Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg	225	230	235
Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys	245	250	255
Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp	260	265	270
Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg	275	280	285
Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu	290	295	300
Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp	305	310	315
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 <212> DNA
 <213> Homo sapiens

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<210> 22
 <211> 280
 <212> PRT
 <213> Homo sapiens

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<211> 1347

<212> DNA

<213> Homo sapiens

<400> 23

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<210> 24

<211> 182

<212> PRT

<213> Homo sapiens

<400> 24

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Gly Tyr Gly Gly Phe Gly Met Pro Leu Thr Lys Leu Gly Gln Glu Glu
          50              55              60

Ala Leu Tyr Gln Ala Leu Lys Asn Val His Pro Asp Leu His Val Tyr
          65              70              75              80

Lys Lys Glu Phe Pro Glu Asp Phe His Leu Ala Lys His Asp Gln Val
          85              90              95

Leu Pro Ile Met Met Tyr Ala Asn Cys Gly Tyr Ser Ile Asn Gly Arg
          100             105             110

Ile Ile Met Cys Phe Asn Lys Gly Ser His Gly Phe Asp Asn Val Leu
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Met Asp Ile Lys Thr Ile Phe Arg Asp Phe Gly Pro Asp Phe Lys Arg
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Asn Arg Leu Ala Glu Pro Phe Asn Ser Ile His Ile Tyr Pro Phe Val

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<210> 25
 <211> 1683
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 26

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 Phe Val Thr Leu Tyr Tyr Arg Glu Pro Asp Asn Met Gly His Arg Phe
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<210> 27

<211> 2912

<212> DNA

<213> Homo sapiens

<400> 27

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<210> 28

<211> 926

<212> PRT

<213> Homo sapiens

<400> 28

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Thr Asp Phe Phe Pro Cys Thr Val Thr Cys Gly Gly Gly Tyr Gln Leu
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Asn Ser Ala Glu Cys Val Asp Ile Arg Leu Lys Arg Val Val Pro Asp
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His Tyr Cys His Tyr Tyr Pro Glu Asn Val Lys Pro Lys Pro Lys Leu
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Lys Glu Cys Ser Met Asp Pro Cys Pro Ser Ser Asp Gly Phe Lys Glu
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Ile Met Pro Tyr Asp His Phe Gln Pro Leu Pro Arg Trp Glu His Asn
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Ser Phe Val Cys Val Glu Glu Ser Met His Gly Glu Ile Leu Gln Val

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Leu His Ile Lys Glu Glu Cys Val Ile Pro Ile Pro Cys Tyr Lys Pro 210 215 220		
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Cys Asn Thr Glu Pro Cys Pro Pro Arg Trp His Val Gly Ser Trp Gly 385 390 395 400		
Pro Cys Ser Ala Thr Cys Gly Val Gly Ile Gln Thr Arg Asp Val Tyr 405 410 415		
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<210> 29
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 <213> Homo sapiens

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<210> 30
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<400> 30

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Lys	Asn	Gly	Met	Val	Phe	Gly	Lys	Glu	Tyr	Thr	Val	Gly	Thr	Lys	Ala	35	40	45	
Val	Tyr	Ser	Cys	Ser	Glu	Gly	Tyr	His	Leu	Gln	Ala	Gly	Ala	Glu	Ala	50	55	60	
Thr	Ala	Glu	Cys	Leu	Asp	Thr	Gly	Leu	Trp	Ser	Asn	Arg	Asn	Val	Pro	65	70	75	80
Pro	Gln	Cys	Val	Pro	Val	Thr	Cys	Pro	Asp	Val	Ser	Ser	Ile	Ser	Val	85	90	95	
Glu	His	Gly	Arg	Trp	Arg	Leu	Ile	Phe	Glu	Thr	Gln	Tyr	Gln	Phe	Gln	100	105	110	
Ala	Gln	Leu	Met	Leu	Ile	Cys	Asp	Pro	Gly	Tyr	Tyr	Tyr	Thr	Gly	Gln	115	120	125	
Arg	Val	Ile	Arg	Cys	Gln	Ala	Asn	Gly	Lys	Trp	Ser	Leu	Gly	Asp	Ser	130	135	140	
Thr	Pro	Thr	Cys	Arg	Ile	Ile	Ser	Cys	Gly	Glu	Leu	Pro	Ile	Pro	Pro	145	150	155	160
Asn	Gly	His	Arg	Ile	Gly	Thr	Leu	Ser	Val	Tyr	Gly	Ala	Thr	Ala	Ile	165	170	175	
Phe	Ser	Cys	Asn	Ser	Gly	Tyr	Thr	Leu	Val	Gly	Ser	Arg	Val	Arg	Glu	180	185	190	
Cys	Met	Ala	Asn	Gly	Leu	Trp	Ser	Gly	Ser	Glu	Val	Arg	Cys	Leu	Ala	195	200	205	
Gly	His	Cys	Gly	Thr	Pro	Glu	Pro	Ile	Val	Asn	Gly	His	Ile	Asn	Gly	210	215	220	
Glu	Asn	Tyr	Ser	Tyr	Arg	Gly	Ser	Val	Val	Tyr	Gln	Cys	Asn	Ala	Gly	225	230	235	240
Phe	Arg	Leu	Ile	Gly	Met	Ser	Val	Arg	Ile	Cys	Gln	Gln	Asp	His	His	245	250	255	
Trp	Ser	Gly	Lys	Thr	Pro	Phe	Cys	Val	Pro	Ile	Thr	Cys	Gly	His	Pro	260	265	270	

Gly	Asn	Pro	Val	Asn	Gly	Leu	Thr	Gln	Gly	Asn	Gln	Phe	Asn	Leu	Asn	
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Asp	Val	Val	Lys	Phe	Val	Cys	Asn	Pro	Gly	Tyr	Met	Ala	Glu	Gly	Ala	
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Ala	Arg	Ser	Gln	Cys	Leu	Ala	Ser	Gly	Gln	Trp	Ser	Asp	Met	Leu	Pro	
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Thr	Cys	Arg	Ile	Ile	Asn	Cys	Thr	Asp	Pro	Gly	His	Gln	Glu	Asn	Ser	
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Val	Arg	Gln	Val	His	Ala	Ser	Gly	Pro	His	Arg	Phe	Ser	Phe	Gly	Thr	
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Thr	Val	Ser	Tyr	Arg	Cys	Thr	Thr	Ala	Ser	Thr	Ser	Trp	Ala	Thr	Pro	
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Val	Leu	Ser	Cys	Gln	Gly	Asp	Gly	Thr	Trp	Asp	Arg	Pro	Arg	Pro	Gln	
	370					375					380					
Cys	Leu	Leu	Val	Ser	Cys	Gly	His	Pro	Gly	Ser	Pro	Pro	His	Ser	Gln	
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Met	Ser	Gly	Asp	Ser	Tyr	Thr	Val	Gly	Ala	Val	Val	Arg	Tyr	Ser	Cys	
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Ser	Ser	Ser	Ile	Val	Tyr	Glu	Cys	Arg	Glu	Gly	Tyr	Tyr	Ala	Thr	Gly	
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Leu	Leu	Ser	Arg	His	Cys	Ser	Val	Asn	Gly	Thr	Trp	Thr	Gly	Ser	Asp	
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Pro	Glu	Cys	Leu	Val	Ile	Asn	Cys	Gly	Asp	Pro	Gly	Ile	Pro	Ala	Asn	
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 Ser Cys Thr Lys Asp Arg Thr Trp Asn Gly Thr Lys Pro Val Cys Lys
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 Ala Leu Met Cys Lys Pro Pro Pro Leu Ile Pro Asn Gly Lys Val Val
 625 630 635 640
 Gly Ser Asp Phe Met Trp Gly Ser Ser Val Thr Tyr Ala Cys Leu Glu
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 <211> 3896
 <212> DNA
 <213> Homo sapiens

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<210> 32

<211> 882

<212> PRT

<213> Homo sapiens

<400> 32

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Lys Asn Gly Met Val Phe Gly Lys Glu Tyr Thr Val Gly Thr Lys Ala
      35             40             45

Val Tyr Ser Cys Ser Glu Gly Tyr His Leu Gln Ala Gly Ala Glu Ala
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Thr Ala Glu Cys Leu Asp Thr Gly Leu Trp Ser Asn Arg Asn Val Pro
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Pro Gln Cys Val Pro Val Thr Cys Pro Asp Val Ser Ser Ile Ser Val
      85             90             95

Glu His Gly Arg Trp Arg Leu Ile Phe Glu Thr Gln Tyr Gln Phe Gln
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Ala Gln Leu Met Leu Ile Cys Asp Pro Gly Tyr Tyr Tyr Thr Gly Gln
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Arg Val Ile Arg Cys Gln Ala Asn Gly Lys Trp Ser Leu Gly Asp Ser
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Thr Pro Thr Cys Arg Ile Ile Ser Cys Gly Glu Leu Pro Ile Pro Pro
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Asn Gly His Arg Ile Gly Thr Leu Ser Val Tyr Gly Ala Thr Ala Ile
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Phe Ser Cys Asn Ser Gly Tyr Thr Leu Val Gly Ser Arg Val Arg Glu

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Phe Arg Leu Ile Gly Met Ser Val Arg Ile Cys Gln Gln Asp His His 245 250 255		
Trp Ser Gly Lys Thr Pro Phe Cys Val Pro Ile Thr Cys Gly His Pro 260 265 270		
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Asp Val Val Lys Phe Val Cys Asn Pro Gly Tyr Met Ala Glu Gly Ala 290 295 300		
Ala Arg Ser Gln Cys Leu Ala Ser Gly Gln Trp Ser Asp Met Leu Pro 305 310 315 320		
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Val Arg Gln Val His Ala Ser Gly Pro His Arg Phe Ser Phe Gly Thr 340 345 350		
Thr Val Ser Tyr Arg Cys Asn His Gly Phe Tyr Leu Leu Gly Thr Pro 355 360 365		
Val Leu Ser Cys Gln Gly Asp Gly Thr Trp Asp Arg Pro Arg Pro Gln 370 375 380		
Cys Leu Leu Val Ser Cys Gly His Pro Gly Ser Pro Pro His Ser Gln 385 390 395 400		
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Ile Gly Lys Arg Thr Leu Val Gly Asn Ser Thr Arg Met Cys Gly Leu 420 425 430		
Asp Gly His Trp Thr Gly Ser Leu Pro His Cys Ser Gly Thr Ser Val 435 440 445		
Gly Val Cys Gly Asp Pro Gly Ile Pro Ala His Gly Ile Arg Leu Gly 450 455 460		
Asp Ser Phe Asp Pro Gly Thr Val Met Arg Phe Ser Cys Glu Ala Gly 465 470 475 480		
His Val Leu Arg Gly Ser Ser Glu Arg Thr Cys Gln Ala Asn Gly Ser 485 490 495		

Trp Ser Gly Ser Gln Pro Glu Cys Gly Val Ile Ser Cys Gly Asn Pro
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 Gly Thr Pro Ser Asn Ala Arg Val Val Phe Ser Asp Gly Leu Val Phe
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 Leu Leu Ser Arg His Cys Ser Val Asn Gly Thr Trp Thr Gly Ser Asp
 545 550 555 560
 Pro Glu Cys Leu Val Ile Asn Cys Gly Asp Pro Gly Ile Pro Ala Asn
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 Pro Gly Val Pro Ser Arg Gly Arg Arg Glu Asp Arg Gly Phe Ser Tyr
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 Arg Ser Ser Val Ser Phe Ser Cys His Pro Pro Leu Val Leu Val Gly
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 Ser Pro Arg Arg Phe Cys Gln Ser Asp Gly Thr Trp Ser Gly Thr Gln
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 Pro Ser Cys Ile Asp Pro Thr Leu Thr Thr Cys Ala Asp Pro Gly Val
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 Thr Val Leu Phe Arg Cys Gln Lys Gly Tyr Leu Leu Gln Gly Ser Thr
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 Thr Arg Thr Cys Leu Pro Asn Leu Thr Trp Ser Gly Thr Pro Pro Asp
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Cys Val Pro His His Cys Arg Gln Pro Glu Thr Pro Thr His Ala Asn
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 Val Gly Ala Leu Asp Leu Pro Ser Met Gly Tyr Thr Leu Ile Thr Pro
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 Ala Arg Arg Ala Ser Pro Ser Arg Val Ala Pro Ser Thr Ala Pro Ala
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<220>
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<220>
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<220>
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<210> 34
 <211> 7
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 <213> Artificial Sequence

<220>
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<220>
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<220>
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<400> 34
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<210> 35
<211> 8
<212> PRT
<213> Artificial Sequence

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<220>
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the specification

<220>
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<220>
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<223> Wherein Xaa is Phe or Tyr or Trp

<220>
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<222> (7)
<223> Wherein Xaa is any 4 or 8 amino acids as set forth
in the specification

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<400> 35

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<210> 36

<211> 13

<212> PRT

<213> Artificial Sequence

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<220>

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<223> Wherein Xaa is any 5 amino acids as set forth in
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<220>

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<222> (6)

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<223> Wherein Xaa is any 3 or 4 amino acids as set forth
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<221> VARIANT

<222> (11)

<223> Wherein Xaa is Phe or Tyr or Trp

<220>

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<222> (12)

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<223> Description of Artificial Sequence: consensus
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<400> 36

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 1 5 10

<210> 37
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 <212> PRT
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<220>
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 1 5

<210> 38
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<221> VARIANT

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<223> Description of Artificial Sequence: Consensus
sequence

<400> 38

Xaa Xaa Xaa Xaa Tyr

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